

TITLE OF THE INVENTION:

Sweet Cherry Tree Named 'Brown'

5

CROSS REFERENCE TO RELATED APPLICATIONS:

None

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR

10 **DEVELOPMENT:**

None

LATIN NAME OF THE GENUS AND SPECIES OF THE PLANT CLAIMED:

Prunus avium L.

15

VARIETY DENOMINATION:

'Brown'

BACKGROUND OF THE INVENTION:

20 The present invention relates to a new and distinct variety of sweet cherry tree, *Prunus avium* L., which, though similar to its parent 'Bing' (not patented) in some characteristics, is decidedly different in maturity and other characteristics as described herein.

The new variety originated as a whole-branch mutation of a 'Bing' cherry tree growing in a cultivated orchard located at Wenatchee Heights, near Wenatchee, Washington, USA, some time after the parent 'Bing' tree was planted in 1986. The mutated branch was first noticed by the inventor in 1994, who initially believed that some disease or other condition was causing the fruit on the mutated branch to ripen 22 to 24 days later than the rest of the tree.

In 1996, the inventor took scionwood from the original mutated branch and grafted it to two established trees in an adjacent orchard. The established trees had been been fruiting for three years. The fruit from the grafted trees is identical to that of the mutated branch of the original tree, thus establishing the trueness to type of the mutation.

In 1997, 210 trees were budded at Van Well Nursery, Wenatchee, Washington USA. These third-generation trees started fruiting in 2002.

BRIEF SUMMARY OF THE INVENTION:

The new sweet cherry variety is similar, if not identical, to its parent 'Bing' in wood, leaf, bloom, and most fruit characteristics but is distinct from it in maturity, coloring pattern, firmness, and possibly in flavor. Because of its greater firmness, storage quality is thought to be longer.

Interest in this new variety arises from the potentiality of extending the market for a 'Bing'-type cherry for at least one month.

DESCRIPTION OF THE PHOTOGRAPHS:

The accompanying color photographs show typical tree, fruit, flower, and leaf specimens of the new sweet cherry tree variety and depict the color as near to true as it is reasonably

possible to do in making a color illustration of this character. It should be noted that colors may vary with growing conditions and time of year, as well as with lighting conditions at the time the photographs are taken.

Fig. 1 is a photograph of the parent 'Bing' tree, showing the mutated branch;

5 Fig. 2 is a close-up photograph of the fruit in various aspects;

Fig. 3 is a photograph of the flowers of the 'Brown' cherry;

Fig. 4 is a photo of a vegetative shoot of the 'Brown' cherry, showing upper and lower leaf surfaces; and

10 Fig. 5 is a comparison of the 'Brown' cherry with Staccato™ 'BC 13S-2009' (U.S. Patent applied for).

DETAILED DESCRIPTION OF THE VARIETY:

The following is a detailed botanical description of the new variety of cherry tree, based on observations made on the original tree located in a commercial orchard on Stemilt Hill, five
15 miles west of Wenatchee, Washington, U.S.A. Color terminology (hue/value/chroma) is in accordance with the Munsell Book of Color, MacBeth Division, Kollmorgen Instruments Corp., 405 Little Britain Road, New Windsor, New York 12553.

Scientific Name: *Prunus avium* L., 'Brown' cultivar.

20 Parentage: Limb mutation of *Prunus avium* L., 'Bing'

Tree:

Size: Large, identical to 'Bing'

Vigor: Vigorous

Branching Habit: Upright, spreading

Density: Average for sweet cherry

Hardiness: Apparently hardy where tested (north central Washington state, USDA
5 zone 5; identical to 'Bing')

Productivity: Good, similar to 'Bing'

Bearing Habit: Annual, consistent

Trunk:

Size: 25 cm in diameter at 30 cm from soil line

10 Bark Texture: Typical sweet cherry: smooth, with vertical striations and horizontal
lenticels

Bark Color: Reddish brown(7.5 R 2/4)

Lenticels: Elongated, 0.5 x 3 cm, about 2 cm apart vertically

Branches:

15 Size: Original 'Bing' tree, 20 cm diameter at 30 cm from crotch; mutated
'Brown' branch, 12.5 cm in diameter at 30 cm from point of origin

Texture: Typical of sweet cherry, smooth with vertical striations and horizontal
lenticels.

Habit: Upright to spreading

20 Color: Reddish brown (7.5 R 2/4)

Current season shoot: 0.5 cm x 50 cm (length), smooth surface; Greenish brown (2.5 Y 4/4); lenticels sparse, approximately 1 per square cm, 0.5 mm in diameter, Light tan (2.5 Y 6/4)

Leaves:

- 5 (Measurements are average of 10 mature leaves from upright shoots of the current season's growth)
- Size: Large, 15.8 cm long, 6.7 cm wide
- Sheen: Glossy
- Form: Lanceolate with acuminate tip
- 10 Petiole: 3.0 to 3.5 cm long; 3 mm thick at base, brownish green (5 Y 5/8) along petiole groove; Olive green (2.5 GY 6/4) along lower surface
- Margin: Somewhat irregularly serrate (teeth vary in length)
- Midvein: Medium, 2 mm thick at base; Olive green (2.5 GY 7/6), tapering to apex
- Tip: Acuminate
- 15 Glands: Two in number, positioned alternately; prominent, reniform in shape, dark purple in color (7.5 R 9/2); positioned on rim of petiole groove about 2 to 3.5 cm from base of leaf petiole
- Stipules: Lacking
- Color: Upwardly disposed surface, dark green (10 GY 3/6); downwardly disposed
- 20 surface, medium green (7.5 GY 5/4)
- Texture: Smooth, with slight depression along veins

Flower Buds:

Hardiness: Hardy

Size: Medium (2 mm diameter)

Length: Medium (5 mm)

Form: Long, conic

5 Quantity: One to 5, average number 2 per node

Flowers: Self-sterile. First bloom April 24 at Wenatchee Heights; Full bloom April 27,
same as 'Bing'

Size: Medium-large, 30 to 35 mm in diameter when fully open

Color: White

10 Bloom Count: Generally 3 per bud (same as 'Bing'), 5 to 8 buds per spur cluster

Petals: Average length 15 mm, width 12.5 mm, cupped slightly inward

Anthers: Large, yellow (5 Y 8.5/4)

Pollen: Abundant, yellow (5 Y 8.5/12)

Stamens: Filament length 10 mm

15 Pedicel: Medium length, 20 mm

Bloom Fragrance: Slight to none

Showiness: Medium, typical of most cherry flowers

Fruit:

Maturity when described: Eating ripe (19 to 21 degrees Brix) August 5, 2002, at

20 Wenatchee Heights, Washington.

Date of first picking: August 5, 2002

Date of last picking: August 15, 2002

- Size: Large, 29.76 to 31.35 mm (8-1/2 to 9 row) transverse diameter; 23 to 25 apical diameter
- Form: Uniform, symmetrical, mostly round to slightly reniform
- Suture: Slightly raised and of darker color than the rest of the skin
- 5 Stem Cavity: Medium to shallow, maximum depth 2 mm; characteristically lighter in color at base of stem (see 'skin')
- Base: Rounded
- Apex: Rounded pistil point slightly indented
- Stem: Rather thin, closely adhering to flesh; susceptibility to cracking not known
- 10 since rain is rare during this late season
- Skin Color: Deep purple (2.5 R 2/4) except around base of stem, where it is bright red (7.5 R 3/12). This is a unique feature of this variety, unlike its parent, 'Bing', or 'Staccato', a similar cherry ripening in the same season.
- Flesh Color: Deep purplish red (5 R 3/4)
- 15 Flesh Texture: Extremely firm, firmer than 'Bing' or 'Staccato'. Firmness as measured by a Firmtech instrument on fully ripe fruit (+/- 20 degrees Brix) averaged over 400 g/mm. 'Bing' picked at a similar maturity averages about 255 g/mm
- Fibers: Few
- 20 Ripening Uniformity: Moderately even (single harvest)
- Flavor: Sweet, low acid, milder than 'Staccato' and 'Bing'
- Juice: Dark, similar to flesh in color (5 R 3/4)

Aroma: Very slight

Eating Quality: Very good

Stone:

Stone Type: Flesh clings to pit, similar to 'Bing' and most other cherry varieties.

5 Size: Medium, 11 mm long, 9 mm wide, 8 mm thick

Form: Oval, rounded, very smooth; helium small, apex round

Sides: Equal

Surface: Very smooth

Ventral Edge: Wide, with slight wings on ridges converging basically and apically

10 Dorsal Edge: Smooth, with narrow ridge from base to apex

Color: Light tan (10 YR 8/4) when dry

Tendency to Split: None

Keeping Quality:

Excellent, at least 30 days in refrigerated storage

15 Resistance to Insects and Diseases:

near Wenatchee, Washington. Comparisons are with 'Bing' and 'Staccato' grown at the same location and with which the new variety is most likely to be compared.